

CLAIMS

What is claimed is:

- 5 1. A method of inhibiting angiogenesis in a patient comprising,
- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof, wherein said endorepellin protein has an amino acid sequence of domain V of perlecan; and
- 10 b) inhibiting generation of blood vessels into a tissue or organ.
2. A method of inhibiting angiogenesis in a tumor of a patient, comprising
- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof,
- 15 wherein said endorepellin protein has an amino acid sequence of domain V of perlecan; and
- b) inhibiting generation of blood vessels into said tumor.
3. A method of monitoring an angiogenesis-mediated disease or condition in
- 20 a patient comprising measuring an amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, in a sample from said patient in which an increase in said amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, relative to that present in a sample derived from said patient at an earlier time indicates disease
- 25 progression.
4. The method of claim 3 wherein said monitoring comprises contacting said patient sample with an anti-endorepellin antibody and measuring an amount of immunospecific binding of endorepellin protein, its fragments or
- 30 derivatives, or analogs thereof, to said antibody.
5. A method of monitoring an angiogenesis-mediated disease or condition in a patient comprising measuring an amount of said endorepellin protein, its

fragments or derivatives, or analogs thereof, in a sample from said patient in which a decrease in said amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, relative to that present in a sample derived from said patient at an earlier time indicates disease regression.

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6. The method of claim 5 wherein said monitoring comprises contacting said patient sample with an anti-endorepellin antibody and measuring an amount of immunospecific binding of endorepellin protein, its fragments or derivatives, or analogs thereof, to said antibody.

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7. A method of treating a tumor in a patient, comprising

- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) inhibiting angiogenesis in said tumor; and
- c) inducing regression of said tumor.

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8. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising

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- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) inhibiting angiogenesis in said patient; and
- c) inducing regression of said angiogenesis-mediated disease or condition.

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9. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising

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- a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) discontinuing said conventional therapeutic regimen;

- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said patient; and
- 5 e) inducing regression of said angiogenesis-mediated disease or condition.

10 **10.** The method of ~~claim 9~~ wherein said conventional therapeutic regimen is at least one of radiation, chemotherapy or surgery.

**11.** A method of treating a tumor in a patient, comprising

- a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- 15 b) discontinuing said conventional therapeutic regimen;
- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said tumor in said patient;
- 20 e) extending dormancy of metastases and inhibition of tumor growth; and
- f) inducing regression of said tumor.

**12.** The method of ~~claim 11~~ wherein said conventional therapeutic regimen is  
25 at least one of radiation, chemotherapy or surgery.

**13.** A diagnostic kit for the detection or measurement of endorepellin protein, its fragments or derivatives, or analogs thereof, in a sample from a patient, comprising in at least one container an antibody that specifically reacts  
30 with a said endorepellin protein, its fragments or derivatives, or analogs thereof in said patient sample.

